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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,643	04/09/1999	TAKAO SAWABE		7725

9629 7590 05/22/2002

MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/288,643

Applicant(s)

SAWABE ET AL.

Examiner

James A. Fletcher

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 12 and 14 are objected to because of the following informalities: Both claims contain the text "device for performing an warning". It is the Examiner's opinion that the text should read --device for performing a warning--. Appropriate correction is required.
2. Claim 17 is objected to because of the following informalities: Claim 17 contains the text "(ii) when staring the reproduction..." It is the Examiner's opinion that the text should read --(ii) when starting the reproduction...-- Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-14, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuchigami et al (6,160,953)

Regarding claim 1, Fuchigami et al disclose an information record medium comprising:

- an audio information recording area on which a plurality of audio information which are different in recording methods are recorded (Col 3, lines 54-55 "a new stream mode for audio packets that is in addition to existing stream modes for audio packets"); and

- a control information recording area on which control information required to reproduce the plurality of audio information recorded on the audio information recording area is recorded (Col 6, lines 54-58 "the encoder apparatus inserts discrimination data into the ADI sections of the audio packets, which indicates that the audio portion of each packet has been recorded using a special stream mode"),
- the control information recorded on the control information recording area including a plurality of first division information for identifying first division units respectively so as to divide each of the plurality of audio information recorded on the audio information recording area by the first division units respectively, the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method (Fig 22, "Audio Frame Information"),
- the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio information recording area (Col 4, lines 18-39 describe in detail the plurality of audio mode channels that can be recorded on the disk).

Regarding claim 2, Fuchigami et al describe an information record medium wherein the control information includes:

- a plurality of second division information for identifying second division units respectively so as to divide each of the plurality of audio information recorded on the recording positions different from each other in the audio information recording area by the second division units as a single reproduction unit (Col 10, lines 39-40 "each of the audio packets includes an ADI portion containing discrimination data specifying that the audio data portion...has been recorded in the supplementary stream mode"); and
- a plurality of management information for correlating the plurality of second division information and the plurality of first division information with each other so that the audio information divided by the first division units are composed of one or a plurality of the audio information divided by the second division units (Col 4, lines 18-39 describe in detail the use of management data to divide the successive portions of a stream of digitally encoded audio data according to the encoding method used for the individual portion of the stream), and
- the management information is provided for each of the plurality of audio information so as to respectively correlate the second division information, which identifies a same second division unit to which the plurality of audio information same in content and different in recording method belong, with the first division information for identifying the same first division unit to which the plurality of audio information same in content and different in recording method belong, for each of the plurality of audio information same in content

and different in recording method (Col 4, lines 18-39 describe in detail the use of management data to divide the successive portions of a stream of digitally encoded audio data according to the encoding method used for the individual portion of the stream).

Regarding claim 3, Fuchigami et al describe an information record medium wherein the management information respectively correlates the second division information for identifying the second division units, the numbers and orders of which are same to each other, with the first division information for each of the plurality of audio information same in content and different in recording method (Col 4, lines 18-39 describe in detail the use of management data to divide the successive portions of a stream of digitally encoded audio data according to the encoding method used for the individual portion of the stream and Col 15, lines 39-41 "the information contents conveyed by the encoded data...e.g. a musical item, are thereby encoded in two basically different ways").

Regarding claim 4, Fuchigami et al describe an information record medium wherein the audio information divided by the second division units in accordance with the second division information, which is respectively correlated with the first division information for each of the plurality of audio information same in content and different in recording method, is recorded on the audio information recording area as the audio information, whose reproduction time is substantially same for each of the plurality of audio information same in content and different in recording method (Col 15, lines 27-32 "The audio packets thus generated successively by the formatting section, after

attachment of pack headers to form respective data packs, are supplied to the modulator, which modulates a recording signal with those data packs...and the data are then recorded on an optical recording disk").

Regarding claim 5, Fuchigami et al describe an information record medium wherein the control information includes information indicative of the recording method as information to select one of the plurality of audio information same in content and different in recording method to be reproduced (Col 5, lines 36-38 "an optical recording disk will enable selective playback of the two differently encoded types of data").

Regarding claim 6, Fuchigami et al describe an information record medium wherein the recording method is at least one of a recording form, a reproducing form, and an encoding method (Col 3, lines 52-53 "an optical recording disk").

Regarding claim 7, Fuchigami et al describe an information record medium comprising:

- a video area on which information including mainly video information and audio information associated with the video information is recorded (Fig 21, a video pack); and
- an audio area on which audio information is mainly recorded (Fig 22, an audio packet),
- control information, which is required to search and reproduce the video information and the audio information, being recorded on the information record medium, and including a plurality of first division information for identifying first division units respectively so as to divide each of a plurality of

audio information recorded on the video area or audio area by the first division units respectively (Figures 21-23 illustrate the presence of a Pack Header, which contains control and management data for the individual pack with which it is associated),

- the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method (Fig 22, "Audio Frame Information")
- on the audio area, the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio area (Col 4, lines 18-39 describe in detail the plurality of audio mode channels that can be recorded on the disk),
- on the video area, the plurality of audio information same in content and different in recording method being multiplexed and recorded within a same record unit in the video area (Col 3, lines 34-39 describe a plurality of standards for audio which accompanies the video signal. The reference teaches that many different audio formats may be encoded on the disk).

Regarding claim 8, Fuchigami et al describe an information reproducing apparatus for reproducing an information record medium comprising:

- an audio information recording area on which a plurality of audio information which are different in recording method are recorded (Col 3, lines 52-56 "an

- optical recording disk for audio reproduction applications, which utilize a new stream mode for audio packets that is in addition to existing stream modes for audio packets"); and
- a control information recording area on which control information required to reproduce the plurality of audio information recorded on the audio information recording area is recorded (Col 6, lines 54-58 "the encoder apparatus inserts discrimination data into the ADI [Audio Data Information] sections of the audio packets, which indicates that the audio portion of each packet has been recorded using a special stream mode"),
 - the control information recorded on the control information recording area including a plurality of first division information for identifying first division units respectively so as to divide each of the plurality of audio information recorded on the audio information recording area by the first division units respectively (Fig 22 "Audio Frame Information"),
 - the first division information which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method (Col 6, lines 54-58 "the encoder apparatus inserts discrimination data into the ADI sections of the audio packets, which indicates that the audio portion of each packet has been recorded using a special stream mode")

- the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio information recording area (Col 4, lines 18-39 describe in detail the plurality of audio mode channels that can be recorded on the disk),
- the information reproducing apparatus for reproducing the audio information in accordance with the control information comprising;
 - a reading device for reading record information which is recorded on the information record medium and includes the audio information and the control information (Col 17, lines 51-52 “a readout section, which reads data which are recorded on a[n] audio optical recording disk as a playback signal”);
 - an inputting device for inputting designation information to designate a condition to reproduce the information record medium (Fig 3, item 30 “Operating Section” and Col 18, lines 9-10 “an operating section through which a user of the playback system can input control commands”);
 - a selecting device for selecting the recording method, the audio information in which is to be reproduced, on the basis of the designation information or set information stored in a memory device (Col 18 lines 26-41 “system controller...is programmed to detect...when the optical recording disk is...according to the present invention.” and

Col 18 lines 46-50 "commands sent from the system controller to the deformatting section will specify use of respectively different control programs by the deformatting section, in accordance with different modes of operation of the audio decoder"); and

- a reproducing device for reproducing the audio information in the recording method, which is selected by the selecting device from among the plurality of audio information same in content and different in recording method, on the basis of the control information and the record information read by the reading device (Col 12, lines 31-32 "a DVD playback system which incorporates an embodiment of a decoder apparatus").

Regarding claim 9, Fuchigami et al describe an information reproducing apparatus comprising

- an extracting device for extracting information indicating the recording method of each of the plurality of audio information recorded on the information record medium from the control information (Col 18 lines 36-41 "system controller...is programmed to detect...when the optical recording disk is...according to the present invention"); and
- a displaying device for displaying the extracted information (Col 19 lines 31-37 "the system controller sets an operating program...and causes the display section [t]o produce a visible indication that the PCM playback mode is established").

Regarding claim 10, Fuchigami et al describe an information reproducing apparatus wherein

- the inputting device is set to receive an input of the designation information regardless of an operation condition of the information reproducing apparatus (Col 18, lines 9-10 “an operating section through which a user of the playback system can input control commands”), and
- the selecting device or the reproducing device is set to perform, when a content of the designation information inputted by the inputting device is changed, respective process on the basis of the changed designation information (Col 18, lines 16-20 “In the case of playing a conventional type of DVD disk [i.e. as detected by the system controller, based on the contents of the header portions of the data packs constituting the playback signal)...the playback system...recovers and outputs...signals from the playback signal that is read”).

Regarding claim 11, Fuchigami et al describe an information reproducing apparatus comprising a re-writing device for re-writing a content of set information stored in the memory device (Fig. 3, item 33 “System Parameters [R/W]” and item 35 “General Parameters [R/W]”).

Regarding claim 12, Fuchigami et al describe an information reproducing apparatus comprising a warning display device for performing a warning display on the basis of the designation information or the set information if the recording method selected by the selecting device cannot be processed by the information reproducing

apparatus (Col 19, lines 52-58 "If...the disk is...a disk which cannot be played by this playback system...appropriate processing is performed...and displaying a message to the user").

Regarding claim 13, Fuchigami et al describe an information reproducing apparatus wherein the selecting device is set to select the recording method on the basis of initial set information stored in the memory device, in an initial setting condition (Col 19, lines 15-19 "a user of the apparatus must select beforehand, by inputting a command to the operating section, the type of digital data from which analog audio signals will be derived").

Regarding claim 14, Fuchigami et al describe an information reproducing apparatus comprising

- a re-writing device for re-writing a content of set information stored in the memory device (Fig 3, items 33 "System Parameters [R/W]" and 35 "General Parameters [R/W]"); and
- a warning display device for performing a warning display if the recording method selected by the selecting device on the basis of the designation information or the set information cannot be processed by the information reproducing apparatus (Fig 3, item 31 "Display Section"),
- the selecting device selecting the recording method, on the basis of [i] designation information inputted by the inputting device (Fig 5, step S12), [ii] set information re-written by the re-writing device (Fig 5, step S13) and [iii] initial set information stored in the memory device in an initial setting condition

(Fig 5, step S14), in this priority order (as shown in the flowchart), as long as the warning display is not performed by the warning display device.

Regarding claim 16, Fuchigami et al describe an information reproducing apparatus for reproducing an information record medium comprising

- an audio information recording area on which a plurality of audio information which are different in recording method are recorded (Col 3, lines 54-55 “a new stream mode for audio packets that is in addition to existing stream modes for audio packets”); and
- a control information recording area on which control information required to reproduce the plurality of audio information recorded on the audio information recording area is recorded (Col 6, lines 54-58 “the encoder apparatus inserts discrimination data into the ADI sections of the audio packets, which indicates that the audio portion of each packet has been recorded using a special stream mode”),
- the control information recorded on the control information recording area including a plurality of first division information for identifying first division unit respectively so as to divide each of the plurality of audio information recorded on the audio information recording area by the first division units respectively, the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method (Fig 22, “Audio Frame Information”),

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- which are identified by the first division information, being recorded on recording positions different from each other in the audio information recording area, (Col 4, lines 18-39 describe in detail the plurality of audio mode channels that can be recorded on the disk) wherein the control information further includes:
 - a plurality of second division information for identifying second division units respectively so as to divide each of the plurality of audio information recorded on the recording positions different from each other in the audio information recording area by the second division units as a single reproduction unit (Col 10, lines 39-40 “each of the audio packets includes an ADI portion containing discrimination data specifying that the audio data portion...has been recorded in the supplementary stream mode”); and
 - a plurality of management information for correlating the plurality of second division information and the plurality of first division information with each other so that the audio information divided by the first division units are composed of one or a plurality of the audio information divided by the second division units (Col 4, lines 18-39 describe in detail the use of management data to divide the successive portions of a stream of digitally encoded audio data according to the encoding method used for the individual portion of the stream), and

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- the management information is provided for each of the plurality of audio information so as to respectively correlate the second division information, which identifies a same second division unit to which the plurality of audio information same in content and different in recording method belong, with the first division information for identifying the same in content and different in recording method belong, for each of the plurality of audio information in accordance with the control information (Col 4, lines 18-39 describe in detail the use of management data to divide the successive portions of a stream of digitally encoded audio data according to the encoding method used for the individual portion of the stream) comprising;
 - a reproduction time processing device for calculating and storing, while reproducing the audio information divided by the first division units (i) the second division information which identifies the second division unit which is currently being reproduced and (ii) an elapsed time from a lead of the calculated second division unit or an elapsed time from a lead of the first division unit which is currently being reproduced (Col 6, lines 23-62 cover how padding bits are added to some formats to keep their timing together. Fig.3, item 41 "De-Formatting Section" makes the switch among the various formats recorded under the control of item 32 "System Controller");

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- an audio information switching device for switching a reproduction of the audio information divided by the second division units, which are identified by the second division information correlated by the management information with the same first division information and which are different in recording method, for each of the audio information divided by the second division units (Fig 3, item 41, "De-Formatting Section" under the control of item 32, "System Controller"); and
- a reproduction control device for starting the reproduction from a point, which corresponds to the same second division unit to which the previously reproduced audio information belongs and the same elapsed time stored by the reproduction time processing device when the audio information switching device switches the reproduction (Col 6, lines 23-62 cover how padding bits are added to some formats to keep their timing together. Fig.3, item 41 "De-Formatting Section" makes the switch among the various formats recorded under the control of item 32 "System Controller").

Regarding claim 17, Fuchigami et al describe an information reproducing apparatus comprising an audio information processing device for reading out the audio information corresponding to a time duration required for switching the reproduction of

the audio information when the audio information switching device switches the reproduction of the audio information,

- wherein (i) while switching the audio information, the audio information switching device reproduces the audio information divided by the second division unit to which the previously reproduced audio information belongs, and (ii) when starting the reproduction of the audio information divided by the second division unit after switching, the audio information switching device reads out the audio information at a point corresponding to the elapsed time of the audio information divided by the second division unit, which is currently being reproduced and is identified by the same second division information as that identifies the second division unit to which the audio information before switching belongs, and actually switches the reproduction of the audio information from the point corresponding to the elapsed time (Col 6, lines 23-62 cover how padding bits are added to some formats to keep their timing together. Fig.3, item 41 "De-Formatting Section" makes the switch among the various formats recorded under the control of item 32 "System Controller").

Claim Rejections - 35 USC § 103

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchigami et al as applied to claim 8 above, and further in view of Mizoguchi et al (6,169,847).

Regarding claim 15, Fuchigami et al do not specifically describe an information reproducing apparatus comprising a detecting device for detecting an insertion condition

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of a headphone plug with respect to a headphone jack, the reproducing device reproducing the audio information which is binaural-recorded if the detecting device detects that the headphone plug is inserted in the headphone jack. However, Mizoguchi et al describe a DVD player capable of multiple channel audio output and stereophonic (two channel) signal is provided to the headphones when they are plugged into an appropriate jack (Col 7, line 43 "high quality surround audio" and Col 5, lines 28-31 "the speaker...is provided with a switch mechanism inhibiting operation of the speaker while a headphone is connected to the headphone jack"). Headphones are typically two-channel devices, and binaural recordings are notoriously well known to optimize that form of playback. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a headphone jack with binaural signals available to them when they are connected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

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(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
May 15, 2002



**ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**